

CHAPTER II: ECONOMY

The purpose of this section is to study Winchester's economy to identify trends and changes which have affected, and may in the future impact, the City's planning. Since the Frederick County economy is so closely related to Winchester's, the analysis will; in most instances, consider both as a single economy. The Virginia Employment Commission (VEC) currently uses the term Labor Market Area (LMA) to define a city-county combination in Virginia. References to the Winchester LMA or LMA will therefore include County data.

The primary economic indicators to be considered are employment and income. Five specific analyses are included. First is a labor market analysis which shows the ways in which residents are employed, as well as the labor drawing area for local industries. Second, the number and kind of local jobs available are considered in a work source analysis. Third, the economic base of the Winchester LMA is considered, identifying those jobs producing goods and services for sale outside versus within the area. The fourth analysis concerns the commuting patterns and its relationship to the total local economy. Based upon the trends of work source, economic base and commuting, projections of the future are generated. A study of income is the last analysis. This chapter summarizes the contents of the various tables and charts contained in the accompanying databook. The best and most current available data has been used from a variety of State and Federal agencies. Although the 1990 census was completed a year ago, the detailed workforce characteristics will not become available until late 1991 or early 1992. The analysis format included in the databook is designed to easily add such data when it is available. Due to statistical methods and source data, some variation will be noted between data sets, however, this should not detract from the effort to generate an overall economic picture for the Winchester LMA.

LABOR ANALYSIS

LABOR FORCE

Labor force refers to the number of persons who are 16 years of age or older and who are employed or seeking work. Of the two basic labor force components - armed forces and civilian - the armed forces portion consisted of only 36 persons in 1980. Accordingly, only the civilian labor force is considered in this study. Comparative census figures for 1970 and 1980, as well as an average for 1990 from the VEC estimates follow.

The combined civilian labor force was 26,534 in 1980, which represented 64 percent of all citizens 16 years and over. In 1970, the labor force was 18,321, which represented 60 percent of all persons age 16 and over. The civilian labor force estimates for 1990 show an increase of 8,776 persons since 1980. This is a growth rate of 33 percent. The labor force increased both in total and in percentage of the population between 1970 and 1990.

Not all individuals seek or hold income paying jobs, thereby participating in the labor force. Winchester and Frederick County's

participation rate in 1980 was equal to Virginia's participation rate of 64 percent. Of those persons over 16 and not in the labor force, 5,163 were 65 or older and 2,350 were between the ages of 55 and 64. Those persons 55 and older accounted for almost 52 percent of all persons not in the labor force.

The female participation rate of 52 percent in 1980 was higher than the state average of 44 percent. This was also an increase from the 1970 participation rate of 43 percent in Winchester and Frederick County. During this ten year period 4,252 females joined the workforce. Further growth in participation by women between 1980 and 1990 is assumed to have taken place. Local data will be available in the 1990 Census. Virginia's participation rates as of 1989 were: 77.9% for males; 61.3% for females; and 69.2% overall.

LABOR CHARACTERISTICS

The resident labor force is classified in two different ways by the Bureau of Census. The first is by the industry in which they are employed, such as agriculture, manufacturing, services, etc. The second is by occupation. Managers or clerical workers, for example, are employed in a number of industries. Because many residents work outside the LMA and other workers commute in, the distribution of type of industry does not match the profile of the work sources in the Winchester LMA.

Between 1970 and 1980, total employment rose 40.7 percent, but the distribution by industry of employed residents remained essentially the same. Just over 27 percent of those employed worked in the manufacturing sector of the economy. The service sector accounted for 24.6 percent of those employed followed by the wholesale and retail industry with 20.9 percent. Of these three industries only the service industry increased its share from 1970 to 1980.

Total employment increased 7,213 jobs between 1970 and 1980. The manufacturing, wholesale and retail trade and service sectors employed 74 percent of this increase in employment. All other sectors also had a net increase in employment.

EMPLOYMENT BY SEX

Of the females working in Winchester and Frederick County, 63 percent were employed by either service or manufacturing industries. The service industry employed 3,935 (38.1%) females and the manufacturing industry employed 2,584 (25.0%) females. An additional 2,379 (23.0%) females were employed in the wholesale and retail sector.

Employment of the Winchester LMA's males was more diverse. The two largest employment sectors were manufacturing 4,223 (28.9%) and wholesale and retail trade with 2,843 (19.5%). These two industries account for 48.3 percent of Winchester and Frederick County male employment. The service sector represented 15.0 percent (2,199) of the working males. The construction, transportation communication utilities (TCU), and agriculture sectors were 14.2%, 9.3%, and 5.2% respectively.

OCCUPATION OF EMPLOYED RESIDENTS

The leading occupation groups for Winchester LMA residents in 1980 were "operatives and kindred," "clerical and kindred," and "craftsmen, foreman and kindred" workers. All increased in total since 1970, but declined from 54.1% to 47.8% of total distribution. Percentage gains were made by "managers and administrators," up by 3.2 percent to 10.9 percent and "professional, technical and kindred workers," up 1.8 percent to 11.6 percent.

The 1990 Census will provide current information on occupations. This, together with commuting patterns, will help determine what the balance is between the local employment opportunities and the people who fill them. A broad base of skilled workers who may be commuting out of the area can represent an economic development asset for firms locating in the Winchester LMA.

OCCUPATION BY SEX

Among Winchester and Frederick County's working males, the largest occupation group in 1980 included craftsmen, foremen, and kindred workers. There were 3,260 such male workers, accounting for 22.3 percent of the male workforce.

Of the female LMA workers 27.7 percent were employed in clerical and kindred. This category included 2,863 female workers in 1980. The second largest group among the females was service with 1,901 workers.

Occupations are broken into four basic groups. The occupational groups have shifted with respect to relative dominance in the ten years between the censuses. While there has been net growth in all occupational groups, employment has drifted away from blue collar and moved toward the white collar fields.

White collar occupations include managerial and professional specialty, plus technical, sales, and administrative support. Blue collar occupations include precision production, craft, and repair, in addition to operations, fabrications, and laborers. Service covers all service jobs. White collar jobs increased by 5.3 percent over 1970, as a percent of the total grouped employment but the 1980 average of 45.7 percent is below the state average of 54.8. Winchester and Frederick County was 9.1 percentage points below the State average in 1980 but was only 8.5 percentage points below the State's 1970 average of 48.9 percent.

Neither the industry distribution nor the occupational distribution changed significantly between 1970 and 1980. There was a shift from blue collar to white collar sector of the economy. This could be a result of job movement by residents or by the recent in-migrants to the Winchester area. Commuting patterns affect occupation as well. The 1990 TRIP commuting survey by the Lord Fairfax Planning District Commission showed 68 percent of Winchester LMA out-commuters held white collar positions and 32 percent held blue collar positions.

UNEMPLOYMENT

Within the last five years the Winchester LMA's unemployment rates have been above the state's average. Except for 1987, the Winchester LMA's unemployment rate has been below the average for the planning district. The unemployment rate for the Winchester LMA's, like other areas, varies with the seasons of the year. The unemployment is usually highest in the winter months (January-March) and lower in autumn. This is due in part to the agricultural crops being harvested in the autumn and the retail stores increasing employment for the Christmas holidays. These two sectors are likewise lower in the winter.

REGIONAL LABOR POOL

As of 1990, there was a total population of 270,874 people living within a 30-mile radius of Winchester. In Virginia, this area includes all or parts of Clarke, Fauquier, Loudoun, Rappahannock, Shenandoah and Warren Counties. In West Virginia the 30-mile radius includes Berkeley, Hampshire, Hardy, Jefferson, and Morgan Counties.

It is estimated that there was a work force population of 208,415 persons 16 years or older within the 30-mile radius in 1990, composed of 101,946 males and 106,470 females. Of those, it is estimated the 78,193 males and 62,072 females participate in the labor force. The "Estimated Labor Pool" considers those persons between the ages 16 and 55. People over 55 quite possibly may not be a likely source of labor for a new industry, since those persons would be close to retirement and may not be interested in a job change.

For 1990, the average labor pool of unemployed seeking work in the Winchester LMA and surrounding counties was 8,213 or 6.1 percent. The major source of potential new workers is females, age 25 to 54, who are not currently in the labor force. Due to long term trends this portion of the pool is shrinking, but it is still significant. Within a 30-mile radius of Winchester in 1990, there were approximately 46,246 females, age 25 to 54, and 12,255 (26.5%) of those were not part of the labor force, based on the 1989 participation rate. In order to get higher participation from this group, daycare opportunities may need to be available on a wider scale or perhaps at a lower cost.

WORK SOURCE ANALYSIS

JOBS IN THE WINCHESTER LMA

The preceding sections established the industry and occupation of residents in the LMA. The industry and number of jobs located within the geographic area of Winchester and Frederick County are measured by the VEC. Using the VEC data, plus other sources, the Federal Bureau of Economic Analysis (BEA) estimates total employment and income by industry.

The LMA had 39,570 jobs in 1988, compared to 29,950 jobs in 1980. This is a net increase of 32.1 percent and 3.6 percent average annual rate for the eight year period. Personal earnings increased by 109.3%. The

average annual rate of increase was 9.7% in a period where the Consumer Price Index rose 4.1% annually.

Wholesale and retail trade with 10,457 jobs, was the major industry for employment in 1988. It represents 26 percent of jobs and 20 percent of personal earnings. Trade growth since 1980 was 66 percent in jobs and 122 percent in income. The average income per trade job was \$15,376. Manufacturing was the second largest employer with 8,713 jobs. There was a 7 percent increase in manufacturing jobs even though income increased 81 percent to an average of \$28,476 per job. The service industry was the third highest employer with 8,485 jobs, a 42 percent gain over 1980. The 1988 income per service job was \$19,026 or about the average for all jobs at \$20,398. With 27,655 total jobs and \$570,336 of income, these three industries account for 70 percent of the jobs and income.

In 1988, government accounted for 9.0 percent (3,550) of the total jobs, most of which (2,741) government jobs are in state and local governments. Contract construction provided 3,390 jobs which was 8.7 percent of the 1988 total employment. Farm employment fell by 284 jobs from 1980 to 1988. This represents a 21.3 percent decrease. Employment growth in the wholesale, retail, and service sectors points to Winchester's importance as a regional center.

All industries posted increases in income. Overall incomes rose by 109.3 percent while employment rose by 32.1 percent. The Non-Farm sector rose by 109 percent and the Private sector posted a 107.4 percent increase. Farm income showed a 156.6 percent increase even though employment decreased by 21.3 percent. The industries with the largest increase in income are construction (186.2%), service (139.0%) and government (123.6%). Wholesale and retail trade industry rose by 121.8 percent and manufacturing industry increased 81.9%.

As stated earlier, growth in the retail and service sectors reflects Winchester's position as a regional center. In the retail sector, the 1982 opening of Apple Blossom Mall provided a focus for regional shopping. Prior to that, several studies indicated that retail dollars were leaving the area. Further development occurred in adjacent retail centers. The overall increase in retail traffic to the City added to the downtown and other existing retail centers. The Service sector has been led by the Winchester Medical Center, but there is considerable diversity.

The stability and high wage level of manufacturing is important to the LMA. The major benefit of the growth since 1980 has been a diversification of the LMA economy. This will help avoid the extreme cycles that result from an narrowly based economy.

ECONOMIC BASE ANALYSIS

BASIC AND SUPPORTING EMPLOYMENT

In this analysis, the LMA employment is divided into basic and non-basic or supporting employment. Basic employment industries sell most of their goods and services outside the LMA. Industries such as manufacturing,

farming and the federal government, along with military enlistment, are considered basic industries. Such industries serve regional, national or global markets.

The supporting sector markets its goods and services locally. These industries normally are wholesale and retail trade, construction, finance, insurance, real estate, and most services along with local governments functions. As has already been established, many Winchester LMA retail and service businesses also market to the greater region.

To determine basic employment, Winchester LMA employment by industry was compared to Virginia's Nonmetropolitan employment by industry for the years 1980 and 1988. All employment above the average level of Virginia Nonmetropolitan per capita employment in each industry, other than farming and manufacturing was considered basic. By this method, 49.9 percent of the 1980 LMA employment was considered basic, a decrease from 50.7 percent in 1980. All industries had a share of basic employment, again reflecting the regional center characteristic of the LMA. Basic employment grew in total by 4,574 jobs, which is an increase of 30.1 percent.

Conversely, 50.1 percent of employment in 1988 was supporting, compared to 49.3 percent in 1980. The supporting industry added 5,046 new jobs, a 34.2 percent increase in the eight years. The ratio of supporting employment to basic employment decreased from 1:0.97 in 1980 to 1:1 in 1988.

COMMUTING PATTERNS

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Commuter data from the 1980 Census reveals that roughly 51.4 percent of the jobs in Winchester were held by City residents. This is of the 8,490 City workers reporting their place of work. There were 16,512 jobs reported in Winchester.

There were 10,884 commuters into the City of Winchester in 1980. Almost 70 percent of these commuters were from Frederick County (7,560). The Counties of Clarke (531), Shenandoah (550) and Warren (407) accounted for 13.7% of all in-commuters. West Virginia (1,581) represented 14.5% of the commuters to Winchester.

Only 33.7 percent (2,862) of Winchester's employed residents worked outside the City in 1980. Fifty percent (1,440) of those out-commuters went to work in Frederick County. Another 24.6 percent (704) of the out-commuters went to work in Clarke County.

Since there were 10,884 in-commuters and 2,862 out-commuters, Winchester experienced a net gain of 8,022 workers in 1980. A major portion of this gain came from Frederick County (+6,120), and West Virginia (+1,501). Net gains came also from Shenandoah County (+528) and from Warren County (+374).

From the commuter data, it can be seen that Winchester was an employment center within the region with a net gain of over 8,000 workers. Nearly 70 percent of these in-commuters choose to work in Winchester and live in Frederick County. Another 28 percent live in the Counties surrounding Frederick County.

There were 22,443 workers reporting their place of work and 24,198 jobs reported in Winchester and Frederick County. There were 5,326 commuters into Winchester and Frederick County. The Counties of Clarke (844), Shenandoah (1,003) and Warren (660) accounted for 47.1% of all in-commuters. West Virginia (2,372) represented 44.5% of the commuters to Winchester and Frederick County. Only 33.7 percent (3,571) of Winchester LMA's employed residents worked outside the City and County in 1980. Thirty five percent (1,252) of those out-commuters went to Clarke County. Another 13.2 percent (473) of the out-commuters went to Warren County.

Since there were 5,326 in-commuters and 3,571 out-commuters, Winchester LMA experienced a net gain of 1,755 workers in 1980. A major portion of this gain came from West Virginia (+2,040).

TRENDS AND PROJECTIONS

The previous sections have considered the workforce, types of employment, and the commuting patterns of the Winchester LMA. Using the trends evident in this data, employment projections have been developed for the years 2000 and 2010 using current LMA population projections of 76,200 and 86,600 respectively. In order to produce these projections, a number of assumptions were made. The BEA employment data considers all jobs, full- and part-time, plus proprietors and other self-employment not covered by employment insurance. Consequently, there is dual job-holding in the statistics which must be factored out. Based on the 1980 census comparison between BEA data and census reports of employment, this was determined to be 94 percent.

The next step was to project 1990 BEA employment consistent with 1990 VEC data. Along with VEC labor force estimates, the in-and out-commuting patterns were computed. The two sets of data then, 1980 and 1990 could serve as a basis for year 2000 and 2010 projections. The labor force participation of the population was expected to increase, but at half the rate of 1980 to 1990. The unemployment rate was projected to drop to 4.0%. Out-commuting was considered to hold constant at 14.96 percent of the labor force. In-commuting was projected to increase, but at half the rate from 1980 to 1990.

These estimates, in total, give the "Net Jobholders" for 2000 and 2010, which is the basis for ultimate support of the work opportunities/jobs. Given an anticipated labor shortage and the likelihood that automation might replace some jobs, dual jobholding was reduced. The net supportable jobs for the years 2000 and 2010 compute to 49,924 and 60,665 respectively.

A population of 86,600 persons in Winchester and Frederick County by 2010 would support 60,665 work opportunities. This is a 1.9 percent annual increase over 1990. During the same twenty year period, the population is projected to increase at about 1.7 percent annually. The number of workers

out-commuting in 2010 is projected to be over 7,000 persons and the number of in-commuters to be 19,246 or about 32 percent of the work opportunities.

Between 1980 and 1990 job growth averaged 3.5 percent annually. Given the assumptions in the projections, the year 2010 population growth would support 60,665 jobs or an average annual increase of 1.9 percent from 41,555 base in 1990. To support a higher level of job growth would require a mix of the following factors: lower out-commuting or higher labor force participation, in-commuting or population growth. Minimizing the travel distance between work and residence has a positive impact on transportation needs, but the trade-off between housing and transportation costs is now the cause of much in- and out-commuting. Local housing costs have an impact on the economy which will be discussed in other parts of the plan.

INCOME ANALYSIS

There are a variety of measures of income relating to workers and residents in the LMA. Because of varying data sources, time periods and methods, it is not possible to compare across the board. What can be gathered is the relative position of Winchester and Frederick County residents compared to the Commonwealth and surrounding jurisdictions, including Northern Virginia.

PER CAPITA PERSONAL INCOME

As reported by the Bureau of Economic Analysis, 1988 per capita personal income in the Winchester LMA was \$15,579. Per capita income has risen 53 percent between 1983 and 1988 compared to 42 percent for the State. In this case the LMA had gained on the state average.

COMPONENTS OF PERSONAL INCOME

The increase in income in Winchester and Frederick County has been due primarily to an increase in net labor and proprietors income by place of residence, which includes total earnings by place work, less personal contributions for social security, with an adjustment of place of residence to account for commuting wage earners. This category grew by 113.4 percent between 1980 and 1988, accounting for 67 percent of the increase in total personal income. Other components of total personal income are income from dividends, interest, rent and transfer payments. All categories grew substantially in the City and County, but transfer payments decreased as a percentage of the total personal income. Growth in all categories for the Winchester LMA was more than that for the Planning District and State.

Transfer payments include retirement and disability benefits; unemployment insurance benefits; and medical, educational and public assistance benefits. In 1988, 13.1 percent of the total personal income of Winchester and Frederick County's residents was from transfer payments. This percentage has decreased from 14.3 percent in 1980. Retirement benefits are the greatest source of transfer payments. The decrease in transfer payments as a percentage of total income is a positive indication of economic growth in Winchester and Frederick County because, for the long term, a high rate of transfer payments income can be a liability. In

general, retirement payments do not keep up with inflation and the elderly households are often subjected to living on fixed incomes in their retirement.

MEDIAN FAMILY INCOME

The 1980 Census measured the median family income for the City of Winchester residents in 1979 at \$17,785. This was 88.8 percent of the State average of \$20,018. Estimates for 1990 put the City at \$32,495 which is 83.6 percent of the \$38,855 State average. These estimates will be confirmed for 1989 by the 1990 Census.

ADJUSTED GROSS INCOME

Adjusted Gross Income or AGI is income data based on Virginia tax returns. While Federal sources utilize other income in their reporting, AGI figures, particularly that for married returns, gives a good picture of what households are actually earning. Winchester's median AGI was above the regional average but below Frederick and Warren Counties. Between 1980 and 1988, Winchester's AGI has decreased as a percentage of the State (as have all jurisdictions in the planning district). By comparison, Northern Virginia (NOVA PDC) grew to 52.6 percent above the State median.

WAGES PAID

The average weekly wage paid to workers by industries in Winchester during the second quarter of 1990 was \$393 according to the VEC. That represents a 71.6 percent increase over the second quarter of 1980. The manufacturing sector paid the highest wages at an average of \$427. Service and finance/insurance/real estate were the next highest paying \$440 and \$434 per week respectively. The Lord Fairfax Planning District had an average weekly wage of \$359 and the State average was \$428.

ECONOMIC DEVELOPMENT POLICIES

The economic development goals of the City are those formulated by the Winchester-Frederick County Economic Development Commission (EDC). The appointment of a full-time executive director should strengthen the ability of the EDC to achieve the goals which can be summarized as follows:

- 1. Maintain a 2.5 to 4 percent annual employment growth rate which affords local residents the opportunity to work in the area.*
- 2. Encourage industrial and commercial diversity with respect to industry type and occupations. Office development and use of modern technology should be promoted.*
- 3. Support the retention and expansion of existing industry.*
- 4. Preserve the vitality of the downtown as a major economic center.*
- 5. Maintain high labor productivity characteristic of the area.*

The activities of the EDC should be coordinated with those of the local Chamber of Commerce, the Economic Development Network of the Planning District, the City and County IDAs and the Downtown Development Board.

